## § 74.602 Frequency assignment.

(a) The following frequencies are available for assignment to television pickup, television STL, television relay and television translator relay stations. The band segments $17,700-$ 18,580 and $19,260-19,700 \mathrm{MHz}$ are available for broadcast auxiliary stations as
described in paragraph (g) of this section. The band segment $6425-6525 \mathrm{MHz}$ is available for broadcast auxiliary stations as described in paragraph (i) of this section. Broadcast network-entities may also use the 1990-2110, 64256525 and $6875-7125 \mathrm{MHz}$ bands for mobile television pickup only.

| Band A MHz | Band B MHz | Band D ${ }^{1} \mathrm{GHz}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Group A channels |  | Group B channels |  |
|  |  | Designation | Channel boundaries | Designation | Channel boundaries |
| 1990-2008 ....... | ..... | A01 ....................... | 12.700-12.725 | B01 ....................... | $\begin{array}{r} 12.7125- \\ 12.7375 \end{array}$ |
| 2008-2025 ....... | ............................. | A02 ....................... | 12.725-12.750 | B02 ....................... | $\begin{array}{r} 12.7375- \\ 12.7625 \end{array}$ |
| 2025-2042 ....... | .. | A03 ....................... | 12.750-12.775 | B03 ....................... | $\begin{array}{r} 12.7625- \\ 12.7875 \end{array}$ |
| 2042-2059 ....... | ............................. | A04 ....................... | 12.775-12.800 | B04 ....................... | $\begin{array}{r} 12.7875- \\ 12.8125 \end{array}$ |
| 2059-2076 ....... | 6875-6900 ............. | A05 ....................... | 12.800-12.825 | B05 ....................... | $\begin{array}{r} 12.8125- \\ 12.8375 \end{array}$ |
| 2076-2093 ....... | 6900-6925 ............. | A06 ....................... | 12.825-12.850 | B06 ....................... | $\begin{array}{r} 12.8375- \\ 12.8625 \end{array}$ |
| 2093-2110 ....... | 6925-6950 ............. | A07 ....................... | 12.850-12.875 | B07 ....................... | $\begin{array}{r} 12.8625- \\ 12.8875 \end{array}$ |
| 2450-2467 ....... | 6950-6975 ............. | A08 ....................... | 12.875-12.900 | B08 ....................... | $\begin{array}{r} 12.8875- \\ 12.9125 \end{array}$ |
| 2467-2483.5 ...... | 6975-7000 ............. | A09 ....................... | 12.900-12.925 | B09 ....................... | $\begin{array}{r} 12.9125- \\ 12.9375 \end{array}$ |
|  | 7000-7025 ............ | A10 ....................... | 12.925-12.950 | B10 ....................... | $\begin{array}{r} 12.9375- \\ 12.9625 \end{array}$ |
|  | 7025-7050 ............ | A11 | 12.950-12.975 | B11 ....................... | $\begin{array}{r} 12.9625- \\ 12.9875 \end{array}$ |
|  | 7050-7075 ............ | A12 | 12.975-13.000 | B12 ....................... | $\begin{array}{r} 12.9875- \\ 12.0125 \end{array}$ |
|  | 7075-7100 ............. | A13 | 13.000-13.025 | B13 ....................... | $\begin{array}{r} 13.0125- \\ 13.0375 \end{array}$ |
|  | 7100-7125 ............. | A14 | 13.025-13.050 | B14 ....................... | $\begin{array}{r} 13.0375- \\ 13.0625 \end{array}$ |
|  |  | A15 | 13.050-13.075 | B15 ....................... | $\begin{array}{r} 13.0625- \\ 13.0875 \end{array}$ |
|  |  | A16 | 13.075-13.100 | B16 | $\begin{array}{r} 13.0875- \\ 13.1125 \end{array}$ |
|  |  | A17 | 13.100-13.125 | B17 | $\begin{array}{r} 13.1125- \\ 13.1375 \end{array}$ |
|  |  | A18 | 13.125-13.150 | $\mathrm{B} 18^{2}$ | $\begin{array}{r} 13.1375- \\ 13.1625 \end{array}$ |
|  |  | A19 2 | 13.150-13.175 | B192 | $\begin{array}{r} 13.1625- \\ 13.1875 \end{array}$ |
|  |  | $\mathrm{A} 2 \mathrm{O}^{2}$ | 13.175-13.200 | B20² ......................... | $\begin{array}{r} 13.1875- \\ 13.2125 \end{array}$ |
|  |  | A21 | 13.200-13.225 | B21 ....................... | $\begin{array}{r} 13.2125- \\ 13.2375 \end{array}$ |
|  |  | A22 ...................... | 13.225-13.250 |  |  |

${ }^{1}$ For fixed stations using Band D Channels, applicants are encouraged to use alternate A and B channels such that adjacent R.F. carriers are spaced 12.5 MHz . As example, a fixed station, relaying several channels, would use A01, B01, A02, B02, A03, etc.
${ }^{2}$ The band $13.15-13.20 \mathrm{GHz}$ is reserved for television pickup and CARS pickup stations inside a 50 km radius of the 100 television markets delineated in $\S 76.51$ of this chapter. Outside a 50 km radius of the 100 television markets delineated in $\S 76.51$ of this chapter, television pickup stations, CARS stations and NGSO FSS gateway earth stations shall operate on a primary coequal basis. The band $13.20-13.2125 \mathrm{GHz}$ is reserved for television pickup stations on a primary basis and CARS pickup stations on a secondary basis inside a 50 km radius of the 100 television markets delineated in $\S 76.51$ of this chapter. Outside a 50 km radius of the 100 markets delineated in $\S 76.51$ of this chapter, television pickup stations and NGSO FSS gateway earth stations shall operate on a co-primary basis, CARS stations shall operate on a secondary basis. Fixed television auxiliary stations licensed pursuant to applications accepted for filing before September 1, 1979, may continue operation on channels in the GHz sement shall be limited to maximum EIRP of 32 dBW towards 0 degrees on the radio horizon These provisions shall GHz segment shall be limited to a maximum EIRP of 3.2 dBW towards 0 degrees on the radio horizon. These provisions shall

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(1) Frequencies shown above between 2450 and 2500 MHz in Band A are allocated to accommodate the incidental radiations of industrial, scientific, and medical (ISM) equipment, and stations operating therein must accept any interference that may be caused by the operation of such equipment. Frequencies between 2450 and 2500 MHz are also shared with other communication services and exclusive channel assignments will not be made, nor is the channeling shown above necessarily that which will be employed by such other services.
(2) In the band $2483.5-2500 \mathrm{MHz}$, no applications for new stations or modification to existing stations to increase the number of transmitters will be accepted. Existing licensees as of July 25, 1985, and licensees whose initial applications were filed on or before July 25 , 1985, are grandfathered and their operations are on a co-primary basis with the mobile-satellite and radiodetermin-ation-satellite services, and in the segment $2495-2500 \mathrm{MHz}$, their operations are also on a co-primary basis with part 27 fixed and mobile except aeronautical mobile service operations.
(3)(i) After January 7, 2004, stations may adhere to the channel plan specified in paragraph (a) of this section, or the following channel plan in Band A:

Channel A1r-2025.5-2037.5 MHz
Channel A2r-2037.5-2049.5 MHz
Channel A3r-2049.5-2061.5 MHz
Channel A4-2061.5-2073.5 MHz
Channel A5r-2073.5-2085.5 MHz
Channel A6r-2085.5-2097.5 MHz
Channel A7r-2097.5-2109.5 MHz
(ii) Stations adhering to the channel plan specified in paragraph (a)(3)(i) of this section may also use the following 40 data return link (DRL) channels to facilitate their operations in the 2025.52109.5 MHz band:

## Lower band DRL channels

2025.000-2025.025 MHz
$2025.025-2025.050 \mathrm{MHz}$ 2025.050-2025.075 MHz 2025.075-2025.100 MHz 2025.100-2025.125 MHz $2025.125-2025.150 \mathrm{MHz}$ 2025.150-2025.175 MHz $2025.175-2025.200 \mathrm{MHz}$ 2025.200-2025.225 MHz 2025.225-2025.250 MHz $2025.250-2025.275 \mathrm{MHz}$
2025.275-2025.300 MHz
2025.300-2025.325 MHz
2025.325-2025.350 MHz
2025.350-2025.375 MHz
2025.375-2025.400 MHz
2025.400-2025.425 MHz 2025.425-2025.450 MHz 2025.450-2025.475 MHz 2025.475-2025.500 MHz

## Upper band DRL channels

2109.500-2109.525 MHz
$2109.525-2109.550 \mathrm{MHz}$ $2109.550-2109.575 \mathrm{MHz}$ $2109.575-2109.600 \mathrm{MHz}$ $2109.600-2109.625 \mathrm{MHz}$ $2109.625-2109.650 \mathrm{MHz}$ $2109.650-2109.675 \mathrm{MHz}$ $2109.675-2109.700 \mathrm{MHz}$ $2109.700-2109.725 \mathrm{MHz}$ $2109.725-2109.750 \mathrm{MHz}$ $2109.750-2109.775 \mathrm{MHz}$
$2109.775-2109.800 \mathrm{MHz}$ $2109.800-2109.825 \mathrm{MHz}$ $2109.825-2109.850 \mathrm{MHz}$ 2109.850-2109.875 MHz $2109.875-2109.900 \mathrm{MHz}$ 2109.900-2109.925 MHz $2109.925-2109.950 \mathrm{MHz}$ $2109.950-2109.975 \mathrm{MHz}$ $2109.975-2110.000 \mathrm{MHz}$
(iii) Broadcast Auxiliary Service, Cable Television Remote Pickup Service, and Local Television Transmission Service licensees will be required to use the Band A channel plan in paragraph (a)(3)(i) of this section after completion of relocation by an Emerging Technologies licensee in accordance with $\S 74.690$ or $\S 78.40$. Licensees declining relocation may continue to use their existing channel plan but must discontinue use of the $1990-2025 \mathrm{MHz}$ band when they indicate to an Emerging Technologies licensee, acting pursuant to $\S 74.690$ or $\S 78.40$ of this chapter, that they decline to be relocated.
(4) [Reserved]
(b) Subject to the conditions of paragraph (a) of this section, frequency assignments will normally be made as requested, provided that the frequency selection provisions of $\S 74.604$ have been followed and that the frequency requested will cause no interference to existing users in the area. The Commission reserves the right to assign frequencies other than those requested if, in its opinion, such action is warranted.
(c) Fixed link stations will be authorized to operate on one channel only.
(d) Cable Television Relay Service stations may be assigned channels in Band D between 12,700 and $13,200 \mathrm{MHz}$ subject to the condition that no harmful interference is caused to TV STL and TV relay stations authorized at the time of such grants. Similarly, new TV STL and TV relay stations must not cause harmful interference to cable television relay stations authorized at the time of such grants. The use of channels between 12,700 and $13,200 \mathrm{MHz}$ by TV pickup stations is subject to the condition that no harmful interference is caused to Cable Television Relay Service stations, TV STL and TV relay stations, except as provided for in §74.602(a) Note 2. Band D channels are also shared with certain Private Operational Fixed Stations, see §74.638.
(e) Communication common carriers in the Local Television Transmission Service (Part 101) may be assigned frequencies available to television broadcast station licensees and broadcast network entities for the purpose of providing service to television broadcast stations and broadcast network entities, respectively.
(f) TV auxiliary stations licensed to low power TV stations and translator relay stations will be assigned on a secondary basis, i.e., subject to the condition that no harmful interference is caused to other TV auxiliary stations assigned to TV broadcast stations, or to cable television relay service stations (CARS) operating between 12,700 and $13,200 \mathrm{MHz}$. Auxiliary stations licensed to low power TV stations and translator relay stations must accept any interference caused by stations having primary use of TV auxiliary frequencies.
(g) The following frequencies are available for assignment to television STL, television relay stations and television translator relay stations. Stations operating on frequencies in the sub-bands $18.3-18.58 \mathrm{GHz}$ and $19.26-19.3$ GHz that were licensed or had applications pending before the Commission as of September 18, 1998 may continue those operations on a shared co-primary basis with other services under parts 21, 25, 78, and 101 of this chapter. Such stations, however, are subject to relocation by licensees in the fixed-satellite service. Such relocation is sub-
ject to the provisions of §§101.85 through 101.97 of this chapter. No new applications for new licenses will be accepted in the $19.26-19.3 \mathrm{GHz}$ band after June 8, 2000, and no new applications for new licenses will be accepted in the $18.3-18.58 \mathrm{GHz}$ band after November 19, 2002. The provisions of $\$ 74.604$ do not apply to the use of these frequencies. Licensees may use either a two-way link or one or both frequencies of a frequency pair for a one-way link and shall coordinate proposed operations pursuant to procedures required in §101.103(d) of this chapter.
(1) 2 MHz maximum authorized bandwidth channel:

| Transmit (receive) (MHz) | Receive <br> (transmit) <br> (MHz) |
| :---: | ---: |
| 18141.0 ........................................................... | $\mathrm{n} / \mathrm{a}$ |

(2) 6 MHz maximum authorized bandwidth channels:

|  | Transmit (receive) (MHz) | Receive (transmit) (MHz) |
| :---: | :---: | :---: |
| 216 MHz Separation |  |  |
| 18145.0 |  | n/a |
| 18151.0 |  | 18367.0 |
| 18157.0 |  | 18373.0 |
| 18163.0 |  | 18379.0 |
| 18169.0 |  | 18385.0 |
| 18175.0 |  | 18391.0 |
| 18181.0 |  | 18397.0 |
| 18187.0 | ........ | 18403.0 |
| 18193.0 |  | 18409.0 |
| 18199.0 |  | 18415.0 |
| 18205.0 |  | 18421.0 |
| 18211.0 |  | 18427.0 |
| 18217.0 |  | 18433.0 |
| 18223.0 |  | 18439.0 |
| 18229.0 |  | 18445.0 |
| 18235.0 |  | 18451.0 |
| 18241.0 |  | 18457.0 |
| 18247.0 |  | 18463.0 |
| 18253.0 |  | 18469.0 |
| 18259.0 |  | 18475.0 |
| 18265.0 |  | 18481.0 |
| 18271.0 |  | 18487.0 |
| 18277.0 |  | 18493.0 |
| 18283.0 |  | 18499.0 |
| 18289.0 |  | 18505.0 |
| 18295.0 |  | 18511.0 |
| 18301.0 |  | 18517.0 |
| 18307.0 |  | 18523.0 |
| 18313.0 |  | 18529.0 |
| 18319.0 |  | 18535.0 |
| 18325.0 |  | 18541.0 |
| 18331.0 |  | 18547.0 |
| 18337.0 |  | 18553.0 |
| 18343.0 | ......... | 18559.0 |
| 18349.0 |  | 18565.0 |
| 18355.0 |  | 18571.0 |
| 18361.0 | ............................................. | 18577.0 |

(3) 10 MHz maximum authorized bandwidth channels:

|  | Transmit (receive) (MHz) | Receive (transmit) (MHz) |
| :---: | :---: | :---: |
| 1560 MHz Separation |  |  |
| 17705.0 |  | 19265.0 |
| 17715.0 |  | 19275.0 |
| 17725.0 |  | 19285.0 |
| 17735.0 |  | 19295.0 |
| 17745.0 |  | 19305.0 |
| 17755.0 |  | 19315.0 |
| 17765.0 |  | 19325.0 |
| 17775.0 |  | 19335.0 |
| 17785.0 |  | 19345.0 |
| 17795.0 |  | 19355.0 |
| 17805.0 |  | 19365.0 |
| 17815.0 |  | 19375.0 |
| 17825.0 |  | 19385.0 |
| 17835.0 |  | 19395.0 |
| 17845.0 |  | 19405.0 |
| 17855.0 |  | 19415.0 |
| 17865.0 |  | 19425.0 |
| 17875.0 |  | 19435.0 |
| 17885.0 |  | 19445.0 |
| 17895.0 |  | 19455.0 |
| 17905.0 |  | 19465.0 |
| 17915.0 |  | 19475.0 |
| 17925.0 |  | 19485.0 |
| 17935.0 |  | 19495.0 |
| 17945.0 |  | 19505.0 |
| 17955.0 |  | 19515.0 |
| 17965.0 |  | 19525.0 |
| 17975.0 |  | 19535.0 |
| 17985.0 |  | 19545.0 |
| 17995.0 |  | 19555.0 |
| 18005.0 |  | 19565.0 |
| 18015.0 |  | 19575.0 |
| 18025.0 |  | 19585.0 |
| 18035.0 |  | 19595.0 |
| 18045.0 |  | 19605.0 |
| 18055.0 |  | 19615.0 |
| 18065.0 |  | 19625.0 |
| 18075.0 |  | 19635.0 |
| 18085.0 |  | 19645.0 |
| 18095.0 |  | 19655.0 |
| 18105.0 |  | 19665.0 |
| 18115.0 |  | 19675.0 |
| 18125.0 |  | 19685.0 |
| 18135.0 | ............. | 19695.0 |

(4) 20 MHz maximum authorized bandwidth channels:

|  | Transmit (receive) (MHz) | Receive (transmit) (MHz) |
| :---: | :---: | :---: |
| 1560 MHz Separation |  |  |
| 17710.0 | ..... | 19270.0 |
| 17730.0 |  | 19290.0 |
| 17750.0 |  | 19310.0 |
| 17770.0 |  | 19330.0 |
| 17790.0 |  | 19350.0 |
| 17810.0 |  | 19370.0 |
| 17830.0 |  | 19390.0 |
| 17850.0 | $\ldots$ | 19410.0 |
| 17870.0 |  | 19430.0 |
| 17890.0 | ....... | 19450.0 |
| 17910.0 |  | 19470.0 |
| 17930.0 | ........ | 19490.0 |
| 17950.0 | $\ldots$ | 19510.0 |


| Transmit (receive) (MHz) | Receive (transmit) (MHz) |
| :---: | :---: |
| 17970.0 | 19530.0 |
| 17990.0 | 19550.0 |
| 18010.0 | 19570.0 |
| 18030.0 | 19590.0 |
| 18050.0 | 19610.0 |
| 18070.0 | 19630.0 |
| 18090.0 | 19650.0 |
| 18110.0 | 19670.0 |
| 18130.0 .................................... | 19690.0 |

(5) 40 MHz maximum authorized bandwidth channels:

| Transmit (receive) (MHz) | Receive (transmit) (MHz) |
| :---: | :---: |
| 1560 MHz Separation |  |
| 17720.0 | 19280.0 |
| 17760.0 | 19320.0 |
| 17800.0 | 19360.0 |
| 17840.0 ...................................................... | 19400.0 |
| 17880.0 ...................................................... | 19440.0 |
| 17920.0 | 19480.0 |
| 17960.0 ...................................................... | 19520.0 |
| 18000.0 | 19560.0 |
| 18040.0 ...................................................... | 19600.0 |
| 18080.0 | 19640.0 |
| 18120.0 ...................................................... | 19680.0 |
| (6) 80 MHz maximum authorized bandwidth channels: |  |
|  |  |
| Transmit (receive) (MHz) | Receive (transmit) (MHz) |
| 1560 MHz Separation |  |
| 17740.0 ...................................................... | 19300.0 |
| 17820.0 ..................................................... | 19380.0 |
| 17900.0 ...................................................... | 19460.0 |
| 17980.0 ..................................................... | 19540.0 |
| 18060.0 ..................................................... | 19620.0 |

(h) TV STL, TV relay stations, and TV translator relay stations may be authorized to operate fixed point-topoint service on the UHF TV channels 14-69 on a secondary basis and subject to the provisions of subpart G of this part:
(1) Applications for authorization in accordance with this paragraph must comply with the following technical limits or be accompanied by an engineering analysis demonstrating why these limits must be exceeded:
(i) Maximum EIRP is limited to 35 dBW;
(ii) Transmitting antenna beamwidth is limited to 25 degrees (measured at the 3 dB points); and
(iii) Vertical polarization is used.

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(2) These stations must not interfere with and must accept interference from current and future full-power UHF-TV stations, LPTV stations, and translator stations. They will also be secondary to land mobile stations in areas where land mobile sharing is currently permitted.
(3) TV STL and TV relay stations licensed for operation on UHF TV channels 52-69 based on applications filed before April 16, 2003, may continue to operate under the terms of their current authorizations until the end of transition to digital television in their market (DTV Transition), as set forth in $\S \S 73.622$ through 73.625 of this chapter. Applications for TV STL and TV relay stations operating on UHF TV channels 52-69 will not be accepted for filing on or after April 16, 2003.
(4) TV translator relay stations licensed for operation on UHF TV channels 52-59 based on applications filed before the end of DTV transition may continue to operate under the terms of their current authorizations indefinitely. TV translator relay stations licensed for operation on UHF TV channels 60-69 based on applications filed before the end of DTV transition may continue to operate under the terms of their current authorizations until the end of DTV Transition. Applications for TV translator relay stations operating on UHF TV channels 52-69 will not be accepted for filing on or after the end of DTV Transition.
(i) 6425 to $6525 \mathrm{MHz}-M o b i l e$ Only. Paired and un-paired operations permitted. Use of this spectrum for direct delivery of video programs to the general public or multi-channel cable distribution is not permitted. This band is co-equally shared with mobile stations licensed pursuant to parts 78 and 101 of this chapter. The following channel plans apply.
(1) 1 MHz maximum authorized bandwidth channels.

| Transmit (or receive MHz) | Receive (or transmit) (MHz) |
| :---: | :---: |
| 6425.5 | 6475.5 |
| 6450.5 | 6500.5 |

(2) 8 MHz maximum authorized bandwidth channels.

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| Transmit (or receive MHz) |
| :--- |
| 6430.0 |
| 6438.0 |
| 6446.0 |
| 6455.0 |
| 6463.0 |
| 6471.0 |

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082; 47 U.S.C. 154, 155, 303)
[28 FR 13718, Dec. 14, 1963]
Editorial Note: For Federal Register citations affecting §74.602, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

## §74.603 Sound channels.

(a) The frequencies listed in $\S 74.602(a)$ may be used for the simultaneous transmission of the picture and sound portions of TV broadcast programs and for cue and order circuits, either by means of multiplexing or by the use of a separate transmitter within the same channel. When multiplexing of a TV STL station is contemplated, consideration should be given to the requirements of $\S 73.687$ of this Chapter regarding the overall system performance requirements. Applications for new TV pickup, TV STL, TV relay and TV translator relay stations shall clearly indicate the nature of any mutliplexing proposed. Multiplexing equipment may be installed on licensed equipment without authority of the FCC, provided the installation of such apparatus on a TV STL station shall not result in degradation of the overall system performance of the TV broadcast station below that permitted by $\S 73.687$ of this chapter.
(b) [Reserved]
(c) Aural STL or intercity relay stations licensed as of July 10, 1970, to operate in the frequency band 942-947 MHz , may continue to so operate pending a decision as to their disposition through a future rule making proceeding.

